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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,517	02/09/2000	Peter J. Ashwood Smith	9-13528-95US	3968

20988 7590 05/04/2004  
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CANADA

EXAMINER
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STEVENS, ROBERTA A

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 05/04/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/501,517

Applicant(s)

ASHWOOD SMITH, PETER J.

Examiner

Roberta A Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-45 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 8 and 10-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Heinzmann (U.S. 5173898).
3. Heinzmann teaches (figure 2) a method of routing variable-length packet data across a communications network having a plurality of data communications channels, comprising:  
inverse-multiplexing a data packet into a frame comprising: a label block (ACF) containing label information of the frame (indicating if data in the slot is valid, column 4, lines 20-35); and two or more respective payload blocks having a predetermined length (fixed length slots); transmitting the label block (ACF) over a label channel (signaling channel) of the network; and transmitting each payload block over respective separate data channels of the network.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzmann.

6. Regarding claims 2, as for the network being a wave division multiplex optical network, it would have been obvious to one of ordinary skill in the art to adapt this type of protocol as WDM is well known in the art.

7. Regarding claim 3, as for adapting MPLS to the network, it would have been obvious to one of ordinary skill in the art to adapt MPLS to Heinzmann's system as MPLS is well known in the art.

8. Regarding claim 4, as for the packet data traffic comprises IP packets, it would have been obvious to one of ordinary skill in the art to adapt IP to Heinzmann's system to take advantage of inverse multiplexing in the IP environment as IP is well known in the art.

9. Regarding claim 5, Heinzmann teaches (columns 3-4) a number N of payload blocks and the predetermined length of each payload block of each frame are selected based on an expected mean size of the data packets.

10. Regarding claim 6, Heinzmann teaches (columns 3-4) inverse multiplexing comprises dividing the data packet into N packets segments of substantially equal size.

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11. Regarding claim 7, Heinzmann teaches (columns 3-4) when the size of each packet segment is less than or equal to a capacity of each payload block, a step of transmitting each packet segment within a respective payload block of a single frame.

12. Regarding claim 9, Heinzmann teaches (column 6, line 60- column 7, line 2) the label block (ACF) comprises encoded information concerning at least a start time and routing across the network of the frame.

***Allowable Subject Matter***

13. Claims 8 and 10-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Claims 21-45 are allowed.

***Response to Arguments***

15. Applicant's arguments filed February 17, 2004 have been fully considered but they are not persuasive. Applicant argues that Heinzmann does not teach that a data packet is inverse

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multiplexed “into a frame comprising a label block containing label information of the frame; and two or more respective payload blocks having a predetermined length”. Heizmann teaches in figure 2 a frame (cycle) which comprises at least one label (ACF) for identifying if the data slot is used, and two or more segments. Applicant also argues that Heizmann does not teach “transmitting the label block over a label channel of the network, and transmitting each payload block over respective separate data channels of the network”. Heizmann teaches in figure 3 and column 4 lines 20-35) a signaling channel for transmitting ACF data which identifies if the segment has valid data or not.

### *Conclusion*

16. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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18. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Roberta Stevens whose telephone number is (703) 308-6607. The examiner can normally be reached on Monday through Friday from 9:00 am to 5:30 p.m.

19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor can be reached on (703) 308-6602.

20. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 305-3900.

21. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 872-9306

For informal draft communications, please label "PROPOSED" or "DRAFT"


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA. Sixth Floor (Receptionist).

Roberta A. Stevens

Patent Examiner

04-29-04



STEVEN H. D NGUYEN  
PRIMARY EXAMINER